

CLAIMS

What is claimed is:

- 1 1. A process for creating an electrically isolated electrode
2 on a sidewall of a cavity in a base, the process
3 comprising the steps of:
4 etching one or more trenches in a backside of the base;
5 forming a layer of insulating material on one or more
6 sidewalls of one or more of the trenches;
7 forming a conductive layer on the layer of insulating
8 material on one or more sidewalls of one or more of the
9 trenches; and;
10 removing base material from a portion of the base bordered
11 by the one or more trenches.
- 1 2. The process of claim 1, wherein the trenches are defined
2 underneath a flap.
- 1 3. The process of claim 1, wherein the trench etch stops on
2 an etch-stop layer.
- 1 4. The process of claim 1, wherein the conductive layer
2 completely fills the trench.
- 1 5. The process of claim 1, wherein a layer of conducting
2 material is also deposited on the backside of the base.
- 1 6. The process of claim 1, wherein the trench is formed using
2 an anisotropic etch.
- 1 7. The process of claim 1, wherein the base is a crystalline
2 material.

ONX-115B

1 8. The process of claim 1 wherein the trench is etched such
2 that an orientation of the sidewall is defined by a
3 crystal orientation of the base material.

1 9. The process of claim 8, wherein the base is composed of
2 crystalline silicon having a <110> crystal orientation.

1

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60
61
62
63
64
65
66
67
68
69
70
71
72
73
74
75
76
77
78
79
80
81
82
83
84
85
86
87
88
89
90
91
92
93
94
95
96
97
98
99
100